



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/529,233

03/25/2005

Toshihiro Matsumoto

LB-1035-575

2201

23117 7590 09/19/2008
NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

DUONG, THOI V

ART UNIT

PAPER NUMBER

2871

MAIL DATE

DELIVERY MODE

09/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,233	Applicant(s) MATSUMOTO ET AL.	
	Examiner THOI V. DUONG	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-15 is/are pending in the application.
- 4a) Of the above claim(s) 9-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/11/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the Amendment filed July 08, 2008.

Accordingly, claim 13 was amended, claims 1-8 were cancelled, and claims 9-11 were withdrawn. Currently, claims 12-15 are considered in this office action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moseley et al. (Moseley, US 6,046,849) in view of JP 2002-040426 (JP'426).

Re claims 12-15, as shown in Fig. 4, Moseley discloses a 2D/3D switching type liquid crystal display panel B, comprising:

a display-use liquid crystal panel SLM 1 capable of performing 2D display and 3D display, the display-use liquid crystal panel generating a display image in accordance with image data inputted;

a parallax barrier 4 which attains a 3D effect by giving a certain viewing angle to the display image at a time of 3D display (or a parallax barrier means which separates the two display images into different viewing angles) (col. 2, lines 5-44; see also Figs. 1-3); and

a switching liquid crystal panel 11 (switchable diffuser) which switches between 2D display and 3D display by enabling or disabling an effect of the parallax barrier 4 (col. 2, lines 54-67),

wherein the switching liquid crystal panel 11 is provided closer to a light source 3 than the display-use liquid crystal panel 1.

As shown in Fig. 11b, Moseley also discloses a similar structure in which the display-use liquid crystal panel 1 is provided closer to the light source 3 than the switchable diffuser 42.

However, Moseley does not disclose a liquid crystal layer in said one of (a) the display-use liquid crystal panel and (b) the switching liquid crystal panel closer to the light source having a transition point higher than that of a liquid crystal layer in the other.

As shown in Figs. 1 and 5, JP'426 discloses a liquid crystal display device comprising a driving cell 30 having liquid crystal 33 and a compensation cell 40 having liquid crystal 43, wherein the liquid crystal 33, which is closer to a light source than the liquid crystal 43, has a transition point higher than that of the liquid crystal 43 for improving the contrast ratio, which is lowered by temperature rise (Abstract; and paragraphs 15-19 and 28-31).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the liquid crystal panel of Moseley with the teaching of JP'426 by employing a liquid crystal layer in said one of (a) the display-use liquid crystal panel and (b) the switching liquid crystal panel being provided closer to a light source than the other, having a transition point higher than that of a liquid crystal

Art Unit: 2871

layer in the other in order to prevent the fall of the contrast ratio by a rise in heat without providing a temperature compensation circuit (see Abstract).

Response to Arguments

4. Applicant's arguments filed July 08, 2008 have been fully considered but they are not persuasive.

Applicant argued that the compensation cell 40 of Takashi (JP 2002-040426) may be provided on either the incidence side or the emission side of the light of the driving cell 30. The Examiner disagrees since Takashi does not disclose that the compensation cell 40 of Takashi may be provided on either the incidence side or the emission side of the light of the driving cell 30. In fact, as shown in Fig. 1, the driving cell 30 of Takashi is provided closer to the light source than the compensation cell 40 since the driving cell 30 is provided on the incidence side of the light source (paragraph 16), wherein the liquid crystal layer 33 of the driving cell 30 has a higher phase transition temperature than the liquid crystal 43 of the compensation cell 40 for improving the contrast ratio, which is lowered by temperature rise (see Abstract). Accordingly, it is obvious that the teaching of Takashi can be applied to any device comprising multiple of liquid crystal cells, wherein the liquid crystal in the cell closer to the light source should have a higher phase transition temperature for improving the contrast ratio which is lowered by temperature rise.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (571) 272-

Art Unit: 2871

2292. The examiner can normally be reached on Monday-Friday from 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms, can be reached at (571) 272-1787.

/Thoi V. Duong/ - Primary Examiner

September 15, 2008